

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : **2001-222065**

(43)Date of publication of application : **17.08.2001**

(51)Int.CI.

**G03B 21/16**

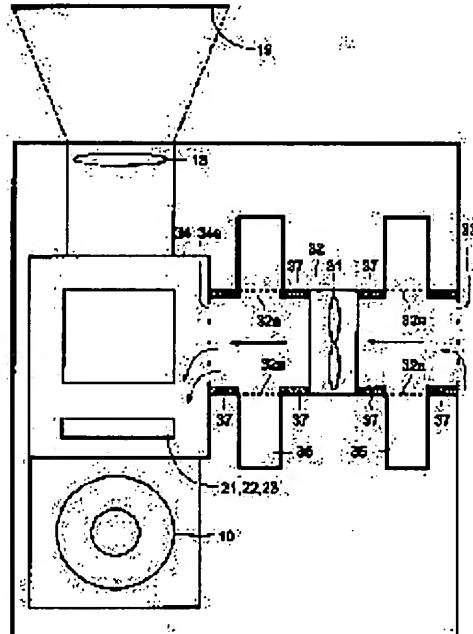
(21)Application number : **2000-029625**

(71)Applicant : **SANYO ELECTRIC CO LTD**

(22)Date of filing : **07.02.2000**

(72)Inventor : **KOBAYASHI KENJI  
NAKAJO SATOSHI**

## (54) ELECTRONIC APPARATUS HAVING COOLING FAN



### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide an electronic apparatus having a cooling fan capable of preventing the generation of sounds by the cooling fan.

**SOLUTION:** The cooling fan 31 is disposed in the middle within a air sending pipeline (duct) 32. The pipeline 32 introduces air sucked from the outside of the apparatus by the cooling fan 31 to liquid crystal panels 21, 22 and 23 which are heat generating sections. A first resonance chamber 35 and a first resonance silencer consisting of through-holes 32a, etc., are constituted on the air suction side of the cooling fan 31. A second resonance chamber 36 and a second resonance silencer 32 consisting of through-holes 32a, etc., are constituted on the air blow-off side of the cooling fan 31. The sounds generated in the air sending pipeline 32 by the cooling fan 31 enter the inside of the resonance chamber 35 and 36 from the through-holes 32a, etc., and the energy of the sound is lost by the resonance, and the sounds are silenced.

## LEGAL STATUS

[Date of request for examination] **01.03.2002**

[Date of sending the examiner's decision of rejection] **20.04.2004**

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office